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ABSTRACT

In the absence of appropriate instruction, word processing programs in general and stylistic analysis programs in particular can reinforce the unproductive revision strategies of inexperienced student writers. For example, the predilection of inexperienced writers to see text as parts (words) rather than as whole (communication) can be reinforced by writing with computers, since only a small amount of text fits on the screen and the entire text is relatively inaccessible until a printout is made. Of even greater concern is the tendency of inexperienced writers to substitute and delete rather than add and rearrange words. The problem is heightened when students use text analysis programs, which concentrate on words rather than on the whole text. The inexperienced writer's concern about rule violations is also reinforced by spelling checkers since they identify such a limited set of errors. Students need instruction in word processing functions that allow them to add and rearrange as well as to substitute and delete; class time should be spent on rearranging text using block movements. Analysis programs should not be run until concerns about the whole essay have been addressed through conferences and repeated revision sessions. In order to use word processing effectively, students must understand the principles of effective composition and apply those principles to writing with a word processor. (HOD)

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THE COMPUTER AND THE INEXPERIENCED WRITER

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ABSTRACT

In her seminal article "Revision Strategies of Student Writers and Experienced Adult Writers" [13], Sommers describes how student and experienced writers differ in their approaches to revising. Sommers identified two main ways in which the strategies differ: 1. student writers see discrete parts; experienced writers see the whole composition, 2. student writers consider their texts as the embodiment of predefined meaning; experienced writers use writing and rewriting to discover meaning. This paper suggests that word processing programs in general and stylistic analysis programs in particular can, in the absence of appropriate instruction, reinforce the unproductive revision strategies of student writers. Only through appropriate, interactive instruction can students begin to change their ineffective revising strategies; and computers, when not used wisely, can hurt rather than help.

KEY WORD LIST

Computer; Microcomputer; Word Processing
Composition; Writing; Writer
College Students
Revision; Revising
Writing Instruction; Higher Education

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In a recent New Yorker cartoon, a small boy sits forlornly in front of a computer, his nose no higher than the keyboard, staring blankly at the screen. His father hovers over him, an expression of anxiety and hopefulness plastered on his face. In the caption, the little boy is overheard to say, "Please, Daddy. I don't want to learn to use a computer. I want to learn to play the violin."

Computers are here to stay, a fact of our lives and of the educational milieu in which we operate. But we don't know yet how best to use computers in the writing classroom--Which students benefit from using computers, and which educational methods work best? Certainly turning students loose on word processors, with or without elaborate text editors or style analysis programs, does little to improve the quality of their writing, as a body of research in word processing and writing instruction is beginning to reveal. No studies to date have shown an improvement in writing quality by students using computers as compared to those not using computers [2, 3, 9, 10]. Furthermore, Collier hypothesized that word processing would encourage revision in student writing, but was not able to confirm that hypothesis in his research [3]. Harris's study [6] suggests that word processing does not, in and of itself, encourage revision and Hult's study [8] shows that word processing does not make student writing more correct. In the book Writing On-Line, several of the contributors c· tion teachers not to expect computers to effect changes in their students' writing habits and procedures [11, 12]. Other authors cited on the bibliography point to similar

concerns.

I wish to suggest that using computers in writing classes, in the absence of appropriate instruction, can even reinforce the unproductive composing strategies characteristic of inexperienced writers. I will focus in this paper on revision strategies, since it has been hypothesized that word processing encourages revising--even if word processing does encourage revising (which is still questionable), what kind of revising does it encourage?

In Sommers' seminal article "Revision Strategies of Student Writers and Experienced Adult Writers" [13] she identified two main ways in which the revision strategies of student and experienced writers differed: (1) student writers saw their compositions in discrete parts and considered revision to be a rewording activity; experienced writers saw their compositions as a complete whole and considered revision to be a communication activity, and (2) student writers viewed their texts as the embodiment of predefined meaning; experienced writers used writing and rewriting to discover meaning. I would like to explore more closely how word processing and text analysis programs can potentially inhibit the very revision strategies we attempt to teach our inexperienced student writers.

Sommers pointed out that students "understand the revision process as a rewording activity. They do so because they perceive words as the unit of written discourse" [13, p.381]. In contrast, the experienced writers saw revising as a way of finding shape for their argument; they saw their writing as a whole, taking on a

reader's perspective and attending to communication in the broadest sense.

This brings us to the second and related major difference between the two groups studied by Sommers: pre-defined meaning vs. discovery of meaning. While the student writers felt there was a pre-defined meaning that they need only find the right words to express, the experienced writers sought to discover or create meaning through the act of composing, and particularly, through revising. The students' inordinate preoccupation with repetition of words or phrases, which they listed as something they worried about most, illustrates their perspective: eliminating repetition involves lexical (wording) rather than semantic (meaning) changes.

The only evidence of the students modifying ideas when revising came when they tried different introductory paragraphs. They stopped revising when they felt that they had corrected any "rule-violations," such as "never begin a sentence with a conjunction" or "never end a sentence with a preposition." Any changes made were changes to accommodate such sets of rules. The students failed to use reordering and addition when revising, but rather concentrated primarily on substitution and some on deletion.

On the other hand, experienced writers defrayed concern about vocabulary and style to the end of the writing process. They made changes on all discourse levels and used all revision operations because they saw their composition process both as a whole and as a way of discovering meaning. The predominant revision operations

used by the experienced writers, in contrast to the student writers, were addition and deletion. The experienced writers stopped revising when they felt they had met their communication objectives and had gotten closer to an understanding of their own meaning. Through successive cycles of revision, experienced writers focused their attention first primarily on finding form for their argument, then on matters of expression and style.

How does using computers for writing contribute to students' ineffectual revising processes as described above? I'm afraid that the already poor strategies of inexperienced writers will be reinforced by computers unless teachers consciously work to integrate the teaching of word processing with the teaching of the writing process. For example, the predilection to see text as parts (words) rather than as whole (communication) can be reinforced by writing with computers. Only a small amount of text fits on the screen and the entire text is relatively inaccessible until a printout is made. In the Hass and Hayes study, the authors point to reading problems observed when students use computers for writing [5]. Because of the small screen and the relative inaccessibility of the entire text, students do not seem to read as well on-screen. Thus, word processing tends to reinforce the "parts" approach to revising of the inexperienced writer.

Of even greater concern is the predilection of inexperienced writers to substitute and delete rather than add and rearrange, which may be reinforced by word processors. For instance, the

rewording functions on most word processors, allowing the writer to substitute and delete, are simple to use and easy to learn. Thus, some students spend most of their computer writing time backing up with the backspace key, constantly erasing and rewording rather than getting on with composing. In contrast, the reordering function of word processing programs is usually more complicated than some of the other editing functions.

The problem is heightened when students use text analysis programs, such as Homer, Wandah (now HBJ Writer), Grammatik, or Writer's Workbench. Analysis programs concentrate on words and rewording (for example, vague words or sexist language), thus reinforcing the inexperienced writer's emphasis on words rather than whole text. Analysis programs often point out repetition of words and phrases to students--something they already worry about unnecessarily. Lexical changes rather than semantic changes are encouraged by analysis programs; thus, a student who is told to choose another word for the vague word "very" will leave it out altogether rather than find a word that is better. The inexperienced writer's concern about rule violations is reinforced by spelling checkers and analysis programs. Furthermore, these programs are often misleading because they identify such a limited set of errors, yet students too often feel that their grammar has been "checked" by the computer. Lastly, students using analysis programs are often encouraged to bring finished drafts to the computer lab and type their drafts into the computer for analysis. This procedure reinforces the conception that meaning is already

defined and the text just needs to be cleaned up.

In a computer-assisted class that I taught recently at Texas Tech University, I observed some of the ineffective revising strategies outlined above. My students were using DEC Rainbow microcomputers with the Select word processing system. Because of the limited number of machines and time constraints in the microlab, there was no class instruction at the computers. Rather, students worked independently in the lab with the help of a lab assistant. They learned to use the word processing system through self-instructional materials in the lab. Also available to students were the Random House Proofreader (a spelling checker) and Grammatik (a text-analysis program). Students wrote drafts at home, typed them into the computer using Select, and then ran the spelling checker and analysis programs on their drafts.

The following excerpt from a student text, in draft and revised form, illustrates the concerns I have outlined:

Figure 1

DRAFT

There is an aspect of college life ~~that~~ which is rarely discussed, yet often considered ~~more~~ of greater importance than the actual college one will be attending. For ~~most~~ many, it even surpasses the concern of how ~~good~~ eatible edible the food will be in the dorm cafeteria. What could this vital life or death issue be? FINDING A ROOMMATE! Inevitably one's roommate will become the center and most important part of importance throughout your college career. For without one there would be no one to accompany you on those midnight snack raids (catered courtesy of Pizza Express), no one to engage in those necessary gossip sessions (concerning who saw who with who and where), and no one with to plan that Spring Break (journey to Padre.) that annual

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There is an aspect of college life rarely discussed, yet often considered of greater importance than the actual college one will attend. For many, it even surpasses the concern of how edible the food is in the dorm cafeteria. What could this vital life or death issue be? FINDING A ROOMMATE! Inevitably, your roommate will become the center of importance throughout your college career. For without one there would be no one to accompany you on those midnight snack raids (catered courtesy of Pizza Express), no one to engage in those necessary gossip sessions, (concerning who saw who with who and where), and no one with to plan Spring Break (that annual journey to Padre.)

From this example, you can clearly see the ineffectual revising strategies outlined by Sommers. The student sees revising as a rewording activity, never considering the communicative effectiveness of the whole text. The word processing and style analysis programs reinforce this approach. Notice that the student has changed only certain words, flagged by the analysis program as vague or possibly incorrect ("most, very, good, and nice"; prepositions, and that/which). Some of the changes are improvements, others just make matters worse--changing "more important" into the prepositional phrase "of greater importance" when the analysis program had already suggested to the student that she used too many prepositional phrases. The student does not discover meaning at all through revising, but rather sees the text as complete, just needing a little cleaning up. When comparing the two versions, one is struck by how little has really changed. There are no global changes--no block moves have been used to reorder parts, no substitutions other than words occur, and there are no additions whatsoever.

As Sommers so aptly put it, "The evidence from my research suggests that it is not that students are unwilling to revise, but rather that they do what they have been taught to do in a consistently narrow and predictable way . . . The students do not have strategies for handling the whole essay" [13, p.383]. In the absence of appropriate instruction, computers just exascerbate the problem. Students in writing classes often find word processing instruction is divorced from the other class work, as they did

(unfortunately) in my own class. In computer labs, students work independently at computers, with little or no peer or teacher interaction. Too often they do not have enough lab time available to them to actually draft at the computer. Consequently, students bring texts which they type into the computer for revision and analysis--thus reinforcing their habit of seeing drafts as essentially finished products.

Yet, those of us who use word processing to teach writing see the potential for real benefits and are unlikely to lose faith in that potential despite our mistakes and failures of the past. Besides, with or without our help, students are increasingly using word processing on their own and the number of college word processing microlabs continues to grow apace--doubling in 1985 alone [1]. But if we are to use computers judiciously, we must design instructional settings and curricula that provide for an interactive computer classroom, using what Hillocks calls an "environmental teaching mode" [7]. Entire writing classes should be working on computers at the same time to solve writing problems in collaboration with each other and with the teacher. Networking and computerized peer evaluations should allow students access to each other's papers for comments and suggestions. Adequate facilities are essential--comfortable work stations, sufficient hardware and software, clear documentaion, and immediate assistance.

Once a congenial writing atmosphere has been established, students should be instructed to employ computers to best

advantage at every stage of the writing process, rather than simply using them as super-typewriters. Prewriting software and exercises will encourage them to use the power of word processing to explore ideas, discover new ideas, make connections between these new ideas and related experience and knowledge, and perhaps gather or retrieve relevant materials. Word processing can help students to experiment and explore through freewriting and brainstorming, for example. It can also help students gather and retrieve materials, serving as a repository of ideas and concepts. Furthermore, word processing helps students to plan and organize their writing in a fluid, flexible form that can easily be manipulated into an informal draft.

Prewriting provides students with a rich source of ideas and information on disk from which to draw as they compose. Using word processing can facilitate a building block approach to composition, filling in and expanding an outline stored on disk, for example, or writing from a predesigned frame. As they compose, students should obtain frequent printouts and gain feedback several times from peers and from the teacher before revising their drafts. Collaboration should be encouraged, between peers and with the teacher, so that students gain experience from writing with others at the computer.

Revising, editing and proofreading can all be facilitated by word processing programs, provided students are instructed in effective revision strategies. Students need instruction in word processing functions that allow them to add and rearrange as well

as substitute and delete. Classtime should be spent on rearranging text using block move commands. Analysis programs should not be run until the whole essay concerns have been addressed through conferencing and repeated revising sessions. Once run, analysis printouts should be brought to class for discussions and for comparison among students. The appropriateness of the advice, in the rhetorical context of the piece being written, can be analyzed by the class. As did the experienced writers, students need to wait until very late in the process to attend to matters of expression and style.

Finally, students must understand the limitations of analysis programs and recognize that careful proofreading is as necessary with computer printed papers as it is with typewritten or handwritten papers. Even when using a spelling checker, words will be missed, particularly homophones (to, too, and two) which the computer will not flag as misspellings. Furthermore, analysis programs cannot check grammar in any real sense of the term, so careful proofreading for correctness is still essential.

Although word processors cannot teach writing, I am convinced that word processing can indeed be an important tool for writers. In order to use word processing effectively, however, students must understand the principles of effective composition and apply those principles to writing with a word processor. Writing courses that include word processing must do a great deal more than simply introduce students to word processing. In essence, instruction in writing with word processing should encourage a

process approach to composition that reinforces the difference between the substantive revision of content exemplified by experienced writers and the ineffectual rewording of finished texts too often exemplified by our students.

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